

ABSTRACT OF THE INVENTION

A liquid crystal device comprises a cholesteric liquid crystal material interposed between a transparent front plate and a back plate. The cholesteric liquid crystal material is switchable between a transparent state and a reflective state in response to an electric field applied in a first direction. In the reflective state the material reflects light characterized by a first wavelength when no electric field is applied. Electrodes are provided for applying an electric field to the cholesteric liquid crystal material in the reflective state in a second direction distinct from the first direction. In this manner the cholesteric liquid crystal material is altered to cause the material to reflect light characterized by a second wavelength different from the first wavelength. A display device may thus be produced having pixels capable of a wide range of colors, thereby achieving a multicolored image for the display.